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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/806,618

10/09/2001

Alon Atsmon

100/02143

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05/21/2007

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EXAMINER

BAROT, BHARAT

ART UNIT

PAPER NUMBER

2155

MAIL DATE

DELIVERY MODE

05/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/806,618 | <b>Applicant(s)</b><br>ATSMON ET AL. |  |
|                              | <b>Examiner</b><br>Bharat N. Barot   | <b>Art Unit</b><br>2155              |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2,3,8-14,27,34-41,43,45,50-59,146,149,151,154-163 and 1724 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,8-14,27,34-41,43,45,50-59,146,149,151,154-163 and 1724 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/05/2007</u> | 6) <input type="checkbox"/> Other: _____  |

**RESPONSE TO REQUEST FOR CONTINUED EXAMINATION (RCE)**

1. Claims 2-3, 8-14, 17-24, 27, 34-41, 43-45, 50-59, 146, 149, 151, and 154-157; and new claims 158-163 remain for further examination.

**The new grounds of rejection**

2. Applicants' arguments and amendments with respect to claims 2-3, 8-14, 17-24, 27, 34-41, 43-45, 50-59, 146, 149, 151, and 154-157; new claims 158-163; and request for continued examination (RCE) filed on March 26, 2007 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

**Claim Rejections - 35 USC § 103**

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 2-3, 8-14, 27, 34-41, 43-45, 50-59, 146, 149, 151, and 154-163 are rejected under 35 U.S.C. 103(a) as being unpatentable over August et al (U.S. Patent No. 6,389,055) in view of Seltzer et al (U.S. Patent No. 6,39289,055).
5. As to claims 2-3, August et al teach a method of communicating between an electronic device (TV/RADIO) and a computer, comprising: providing the computer with an audible sound receiving and generating sub-system including a microphone and a loudspeaker; transmitting from the electronic device at least one first acoustic signal,

encoded with information, to the computer; receiving the at least one first acoustic signal by the microphone, to be detected by the computer; processing the at least one first acoustic signal, by the computer, to extract the encoded information; and also disclose that the acoustic signal comprises an ultrasonic signal (abstract; summary of the invention; figures 1, 3, and 4-5; column 2 line 66 to column 3 line 58; column 4 lines 13-35; column 5 lines 10-17; and column 5 lines 24-35).

However, August et al do not teach that transmitting to the electronic device from the computer, using the loudspeaker, at least a second acoustic signal, encoded with information, in response to the detected at least one first acoustic signal.

Seltzer et al explicitly teach a bi-directional acoustic signal communications between two devices and transmitting to the electronic device from the computer, using the loudspeaker, at least a second acoustic signal, encoded with information, in response to the detected at least one first acoustic signal (see abstract; figures 1-2; and column 4 lines 7-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Seltzer et al stated above in the method of August et al for communicating between an electronic device and a computer because it would have maximized the utilization of the electronic device and improved efficient usage of the electronic device, and also improved remote control through the acoustic signals.

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6. As to claims 8 and 11, they are also rejected for the same reasons set forth to rejecting claims 2-3 above. Additionally, August et al teach that forwarding an indication of the information to a remote computer, over the Internet; and disclose that the acoustic signal comprises an ultrasonic signal and a stand alone signal not overlaid on a human tangible signal (abstract; summary of the invention; figures 1 and 3-6; column 2 line 66 to column 3 line 58; column 4 line 13 to column 5 line 17; and column 5 lines 24-35).

7. As to claims 9-10, August et al teaches that the indication comprises a sound file and a data file (figures 1 and 3-4; and column 3 lines 22-28 and 39-43; and column 5 lines 25-35).

8. As to claims 12-14, August et al teach that the computer comprises a personal digital assistant, a portable computer, and a desktop computer (figure 2; and column 5 line 42 to column 6 line 3).

9. As to claim 27, August et al teach that the controlling at least one action of a toy, responsive to the received at least one audible sound (column 6 lines 29-53; and column 10 line 65 to column 11 line 10).

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10. As to claims 34-35, August et al teach that the electronic device comprises a toy and the information comprises stored player input (column 10 line 65 to column 11 line 10).

11. As to claims 36-40, August et al teach that the electronic device comprises a smart card, a wireless communication device, a computer, and a computer peripheral; and the encoded information comprises personal information (figure 4; and column 5 lines 18-35).

12. As to claim 41, Seltzer et al teach that the logging into the computer responsive to the at least one first acoustic signal (figures 1-2; and column 4).

13. As to claims 43-45, August et al teach that the acoustic signal comprises human audible sound, wherein the human audible sound has a main frequency over 10kHz and infra-sonic (figures 4-5; and column 5 lines 17 to column 6 line 11).

14. As to claims 50-51, August et al teach that the audible sound subsystem comprises a sound card and a SoundBlaster compatible sound card (figures 4-5 and 9; column 5 line 17 to column 10 line 64; and column 14 lines 33-59).

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15. As to claims 52-59, August et al teach that the sound sub-system is designed for audible sound communication with a human operator (figures 1 and 3; and column 3 lines 19-28); and the ultrasonic signal has a variety of frequency (column 3 line 59 to column 4 line 35; and column 5 lines 44-51).

16. As to claims 146 and 151, August et al teach that the electronic device comprises a telephone and the information comprises e-commerce information (figure 1 and 4; column 2 line 66 to column 3 line 58; and column 5 lines 17-35).

17. As to claims 149 and 154, August et al teach that the source comprises a telephone and the information comprises e-commerce information (figure 1 and 4; column 2 line 66 to column 3 line 58; and column 5 lines 17-35).

18. As claim 155, August et al teach that the at least one ultrasonic signal comprises a standalone signal not overlaid on a human tangible signal (see figures 1 and 3-6).

19. As to claim 156, August et al teach that the at least one first acoustic signal is digitally encoded with information (abstract; summary of the invention; figures 1 and 5; column 2 line 66 to column 3 line 58; column 4 lines 13-35; column 5 lines 10-17; and column 5 lines 24-35).

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20. As to claim 157, August et al teach that the responding by computer to the at least one first acoustic signal, as if the computer received an input from a pointing device or a touch screen (figures 5-6; and column 6 lines 11-53).

21. As to claims 158-159 and 162, Seltzer et al teach that the processing the at least one first acoustic signal comprises performing one or more of: demodulating the encoded information into bits; and error checking using an error detection code, and also disclose that the first and second acoustic signals are encoded according to a digital binary code (column 5 lines 1-52; and column 7 lines 16-40).

22. As to claim 160, August et al teach that the first and second acoustic signals are encoded using one or more of AM, PSK, QPSK, pulse length encoding, frequency modulation, Pulse Width Modulation and On-Off Keying (column 4 lines 13-35; and column 5 lines 44-51).

23. As to claims 161, Seltzer et al teach that the first and second acoustic signals include an error detection code (figure 3; and column 5 lines 1-20).

24. As to claims 163, Seltzer et al teach that transmitting the at least one first acoustic signal comprises transmitting at least one first acoustic signal encoded with information on a carrier thereof (column 4 lines 44-67).



25. Claims 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over August et al (U.S. Patent No. 6,389,055) in view of Seltzer et al (U.S. Patent No. 6,39289,055) as applied to claim 2 above, and further in view of Foxlin (U.S. Patent No. 6,176,837).

26. As to claims 17-24, neither August et al nor Seltzer et al teach that the processing comprises determining a distance between the microphone and the electronic device, movement of the microphone relative to the electronic wherein the movement comprises angular movement and translation, a spatial position of the microphone relative to the electronic device wherein the spatial position is a one/two/three dimensionals spatial position.

Foxlin teaches that the processing comprises determining a distance between the microphone and the electronic device, movement of the microphone relative to the electronic device wherein the movement comprises angular movement and translation, a spatial position of the microphone relative to the electronic device wherein the spatial position is a one/two/three dimensional spatial position (abstract; summary of the invention; figures 1-4; and column 3 line 25 to column 5 line 44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Foxlin stated above in the method of August et al for communicating with an electronic device having a computer because it would have maximized the utilization of the electronic device and improved efficient

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usage of the electronic device, and also improved remote control through the acoustic signals.

**Contact Information**

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bharat Barot** whose Telephone Number is **(571) 272-3979**. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM. Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number **(571) 273-8300**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Saleh Najjar**, can be reached at **(571) 272-4006**.

*Bharat Barot.*  
BHARAT BAROT  
PRIMARY EXAMINER

Patent Examiner Bharat Barot

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May 10, 2007